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Inventors: Wellington et al. Application No.: 09/841,447 Atty. Dkt. No.: 5659-01000

Amendments to the Claims

The following listing of claims will replace all prior versions and/or listings of claims in the application:

Listing of Claims:

1-946. (cancelled)

947. (currently amended): A method of treating a hydrocarbon containing formation in situ, comprising:

heating a portion of the formation to a temperature sufficient to support oxidation of hydrocarbons in the heated portion, wherein the heated portion is located in the formation substantially adjacent to a wellbore;

providing an oxidant to a conduit positioned in the wellbore;

allowing the oxidant to flow from the conduit to a heat source zone in the heated portion, wherein the heat source zone supports an oxidation reaction between the oxidant and hydrocarbons in the heat source zone;

allowing at least a portion of the oxidant to react with hydrocarbons in the heat source zone to generate heat;

removing excess oxidant from the heat source zone to inhibit the oxidant from flowing to the a pyrolysis zone in the formation; and

allowing heat to transfer substantially by conduction to a-the pyrolysis zone in the formation to pyrolyze at least a portion of the hydrocarbons in the pyrolysis zone.

- 948. (previously presented): The method of claim 947, wherein heating the portion of the formation comprises raising a temperature of the heated portion above about 400 °C.
- 949. (previously presented): The method of claim 947, wherein the conduit comprises critical flow orifices, the method further comprising allowing the oxidant to flow through the critical